JOINT EDUCATION MOBILITY MODEL (JEMM)

MODEL SUMMARY:

T he Joint Educational Mobility Model (JEMM) is a PC-based theater logistics model that simulates strategic force deployment. The JEMM is a completely re-engineered version of the older Shark Deployment model; it was designed to replace and improve its predecessor. The JEMM acts as a vehicle to help students understand the capabilities and limitations of the United States to project forces in support of national interests. Students are given a realistic international situation forcing them to go through the planning and execution process necessary to deploy forces to the troubled area. The JEMM is a Windows®-based program with pull-down windows and point and click capability. The output from JEMM, a force flow, can be linked directly to the ACES model to populate the model with forces for ACES-based, computer-driven wargames. The JEMM output can also be used as a stand-alone deployment estimator for manual and computer-assisted wargames. Improvements upon the predecessor Shark model include the ability to generate a single, comprehensive force flow for two nearly simultaneous major theater wars (MTWs); easier, more intuitive user interface; faster execution with the ability to stop and restart execution; and the ability to close or degrade ports or strategic bottlenecks (such as canals, straits, airfields, etc.).

MODEL CUSTOMERS:

The JEMM model is used to generate force flows for numerous AFWI wargames and exercises.

OBJECTIVES/PURPOSE:

The JEMM model aids a warfighter's understanding and appreciation of:

a. The decision-making process of developing and implementing a course of action (COA) in response to a potential crisis.

b. The impact and importance of the deployment process on the execution of our national response.

c. The capacity of sea and strategic airlift assets and the transit times associated with those assets.

d. The allocation process of deploying assets to maximize performance.

MODEL EXECUTION:

The JEMM models the deployment phase of United States forces in support of a notional international crisis. It estimates the feasibility of closure dates requested by the user for strategic unit movement. Game participants develop a deployment plan or COA in response to the emerging crisis. The COA is evaluated by JEMM to determine the amount of time required for deployment, the availability status of units at any given date and the availability of strategic transportation assets. Available units, aircraft and port data are provided to reflect the appropriate future game environment. Participants will then execute the COA by selecting individual units, their port of embarkation (POE), the mode of transportation and their port of debarkation (POD). Participants then oversee the deployment process by selecting movement criteria for each unit. Port throughput capacities can be degraded to simulate the effect of hostile activities.

After units and shipping points are selected, participants execute the transportation feasibility estimator (TFE) of the program. This loads the selected units on available aircraft and ships and delivers them to their POD. The model determines unit arrival dates by analyzing available aircraft and ship cargo capacity, port capacity, passenger capacity, processing times and ramp space.

Participants can review the results of the TFE analysis and obtain the projected arrival dates for all COA units. The TFE projection will also indicate both location shortfalls and unused transit points. Problem units that did not arrive by their latest arrival date are identified, along with a possible cause. The POE and POD throughput and passenger utilization rates are analyzed and charted for each location. Remaining capacity is also identified by date for the entire mobilization period. Participants may try to optimize assets and eliminate the bottlenecks by modifying the COA to maximize existing capacity.

GENERAL INFORMATION:

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